APPENDIX A – DESIGN GUIDELINES

This section describes the guiding design principles relating to various physical traffic calming devices. The design guidelines are based on recommended designs published in Traffic Calming State-of-the Practice3 and Canadian Guide to Traffic Calming4. Appendix B contains standard engineering design templates for the most common traffic calming devices.

SPEED CONTROL - VERTICAL MEASURES

Ramp Profiles

Ramp profile describes the angle or approach of the vertical measure that a vehicle would traverse. Vertical measures (e.g., speed humps) should use Parabolic profiles on the approach and departure ramps to the device. Parabolic profiles have consistently been used in other programs around the nation and are a recommended design according to Institute of Transportation Engineers: Guidelines for the Design & Application of Speed Humps (ITE, 1993). Figure A-1 shows three commonly used profiles, and a description of each follows below:

- Sinusoidal profiles have slightly less reduction effects on speed than circular and parabolic profiles but higher comfort levels for vehicles and bicyclists and are typically more difficult and expensive to construct due to the slope of the profile.
- Circular profiles have moderate reduction effects on speeds (compared to the two other profiles) and comfort levels for vehicles and bicyclists.
- Parabolic profiles have the greatest reduction effects on speeds but have the lowest comfort levels for vehicles and bicyclists due to the greater rise in the slope of the profile.

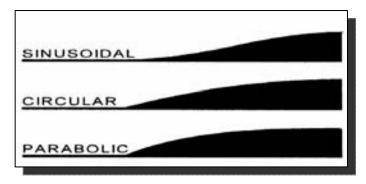


Figure A-1 Vertical Measure Ramp Profiles

³ Ewing, R. (1999). *Traffic Calming: State of the Practice*. Washington, DC: Institute of Transportation Engineers/Federal Highway Administration.

⁴ Canadian Guide to Neighbourhood Traffic Calming, (1998) Ottawa, Canada: Transportation Association of Canada.